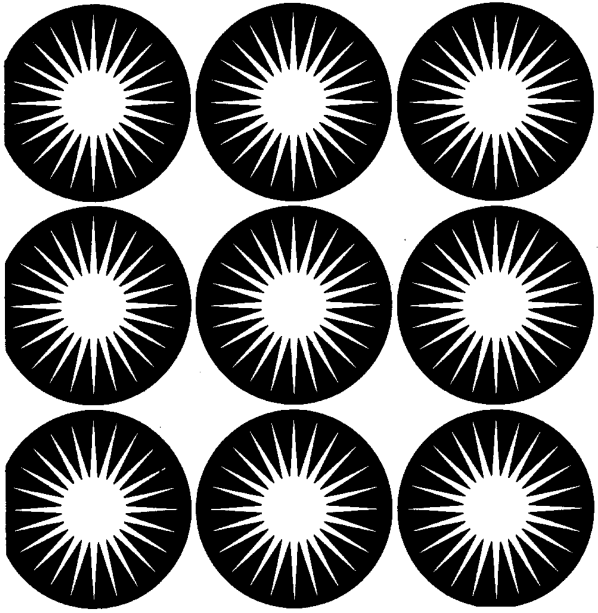
Vivitar
automatic electronic flash
Model 283

Owner's Manual
Gebrauchsanleitung
Manuel du propriétaire
Manual del propietario



CONGRATULATIONS . . . AND WELCOME to the ever-increasing number of photographers now enjoying Vivitar electronic flash. This Owner's Manual is a handy reference guide and we suggest you refer to it whenever questions arise on the use and care of your flash.

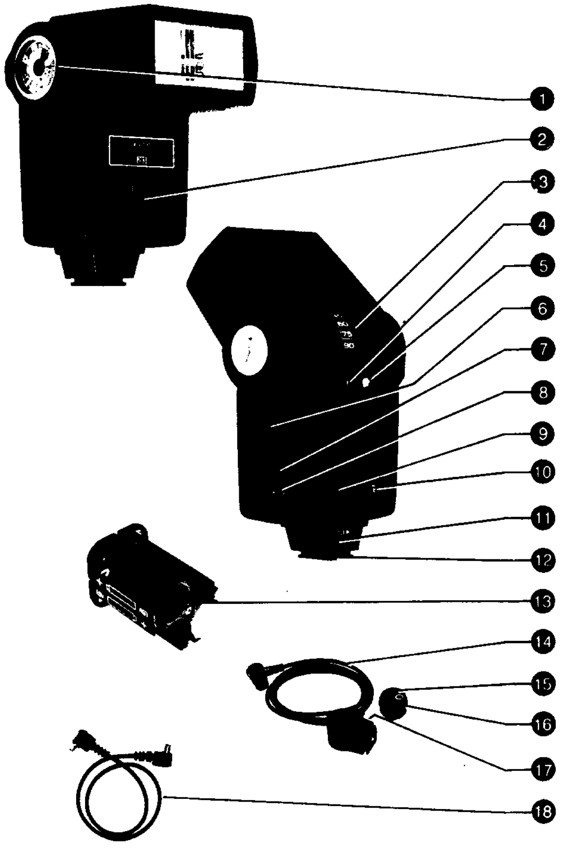
Your new Model 283 flash unit is the heart of an extensive system of unique and sophisticated accessories that allow you to exercise your creativity to its fullest potential. As your experience with electronic flash expands, look to Vivitar for quality products that help you take pictures with that "professional touch."

We thank you for selecting this product and hope that the versatility of the entire Vivitar 283 Flash System brings you many years of picture-taking enjoyment.

Description of Controls

❶ Illuminated Calculator Dial
❷ Sensor Socket
❸ Bounce Angle Scale
❹ Sufficient Light Indicator
❺ Calculator Dial Light Button
❻ Battery Compartment Cover
❼ Shutter Cord Socket
❽ AC Adapter Receptacle
❾ On-Off Switch
❿ Ready Light/Open Flash Button
⓫ Mounting Foot Lock Lever
⓬ Mounting Foot
⓭ Alkaline Battery Holder
⓮ Remote Sensor Cord and Sensor Holder*
⓯ Removable Sensor
⓰ Mode Selector
⓱ Sensor Holder Shutter Cord Socket
⓲ Detachable Shutter Cord

** Optional accessory in some countries*



IMPORTANT SAFEGUARDS

When using your photographic equipment, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions.
2. Close supervision is necessary when any equipment is used by or near children. Do not leave equipment unattended while in use.
3. Care must be taken as burns can occur from touching hot parts.
4. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged—until it has been examined by a qualified serviceman.
5. Do not let cord hang over edge of table or counter or touch hot surfaces.
6. If an extension cord is necessary, a cord with a suitable current rating should be used. Cords rated for less amperage than

the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.

7. Always unplug equipment from electrical outlet when not in use. Never yank cord to pull plug from outlet. Grasp plug and pull to disconnect.

8. Let equipment cool completely before putting away. Loop cord loosely around equipment when storing.

9. To protect against electrical shock hazards, do not immerse this equipment in water or other liquids.

10. To avoid electric shock hazard, do not disassemble this equipment, but take it to a qualified serviceman when some service or repair work is required. Incorrect reassembly can cause electric shock hazard when the equipment is used subsequently.

SAVE THESE INSTRUCTIONS

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Short Course of Instructions

1

Set the flash head tilt at 0°, slide back Battery Compartment Cover and insert batteries. (See page 4)

2

Flash unit 5 times to form capacitor. (See page 8)

3

Set camera to correct shutter speed for electronic flash.

4

Set film speed on Calculator Dial. (See page 7)

5

Mount the flash on camera.

Attach Shutter Cord to flash unit and "X" terminal on camera. (See page 9)

6

Aim the flash and/or set flash head tilt to the desired shooting angle. (See page 12)

7

Plug the Sensor ⑮ into the flash. (See page 5)

8

Select an automatic f-stop from the Calculator Dial that provides the automatic operating range or depth of field you desire. (See page 8)

9

Set the Mode Selector on the Sensor to the corresponding color. (See page 5)

10

Set camera lens to the auto f-stop you selected from the Calculator Dial.

11

Slide the On-Off Switch ⑨ to the RED "ON" position. Focus camera. If desired, fire a test flash after the Ready Light glows. (See page 6)

12

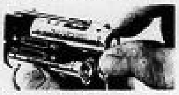
If Sufficient Light Indicator glows, wait for the Ready Light and then take the picture.

Battery Operation

1

Set the flash head tilt to 0° and remove the Battery Compartment Cover ⑥ by sliding it away from the body of the flash unit. A stop is provided on the cover so you can load the batteries without completely removing the cover if desired.

2



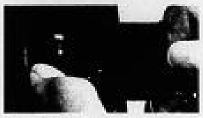
Remove the Alkaline Battery Holder ⑲ from the Battery Compartment and install 4 AA alkaline batteries according to the diagram on the Holder. If the batteries are not installed correctly the flash unit will not function.

CAUTION: Beware of bargains! Best results and performance to specifications are based on the use of fresh 1.5V AA *alkaline* batteries.

3

Insert the Battery Holder into the Battery Compartment, making sure the squared-off corner of the Holder aligns with the squared-off corner of the Battery Compartment.

4



To replace the cover, push the batteries into the flash slightly and slide the cover forward until it is firmly seated. If the cover has been completely removed, align it with the body of the flash unit, making sure the edges of the cover are in slots. Then slide it into place.

Battery Saving Circuit

Your flash unit has a built-in circuit that acts to *significantly* prolong battery life. When this circuit is in operation, the Ready Light ⑩ will BLINK.

This Battery Saving Circuit only works with Alkaline or NiCad batteries. The Ready Light will remain on (not blinking) when the unit is being operated with AC (SB-4) or High Voltage Battery Pack.

When to Change the Batteries

The batteries should be replaced when the Ready Light fails to glow after 30 seconds or when no sound can be heard when the unit is switched on. It's a good idea to periodically clean both ends of the alkaline batteries and all other battery contacts on the Battery Holder and inside the Battery Compartment with a pencil eraser.

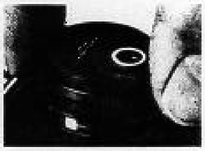
Automatic Operation

The Sensor

Your Vivitar 283 Electronic Flash is equipped with a Removable Sensor ⑮ that measures the light reflected from the subject and other reflective surfaces near the subject. This information is interpreted by a solid state computer in the Sensor which programs the flash to provide just the right amount of light required for a perfect exposure. The practical advantage is that you don't have to change the f-stop on your camera lens when you move closer to a subject or farther away. As long as your subject is within the automatic operating range of the flash for that f-stop, the computer automatically makes the adjustment for you..

To remove the Sensor from the flash, pull it straight out from the body of the flash. To mount the Sensor back on the flash, align the black ridge at the back of the Sensor with the groove in the Sensor Socket ② and push the Sensor firmly into the flash.

The Mode Selector



The Mode Selector ⑯ on the Sensor allows you to set the 283 for "manual" operation, or for automatic operation with four different f-stops on your camera lens. This provides you with a means for controlling the depth of field in your photographs. Because the four f-stops are determined by the speed of the film you are using, each automatic mode is assigned a color.

The Mode Selector may be set to any one of the following five positions:

M "Manual" — In this position your flash will provide maximum light output regardless of the flash-to-subject distance. (See page 16)

YELLOW — Utilizes the widest lens opening for relatively shallow depth of field, and provides the greatest automatic operating range. Automatic operating range: **5 to 43 feet** (1.5 m to 13.1 m)

RED — Utilizes a medium lens opening for somewhat more depth of field. The automatic operating range is shortened accordingly. Automatic operating range: **4 to 30 feet** (1.2 m to 9.1 m)

BLUE — Utilizes a smaller lens opening for greater depth of field. Automatic operating range: **2 to 15 feet** (0.6 m to 4.5 m)

PURPLE — Utilizes the smallest lens opening for maximum depth of field. Automatic operating range: **2 to 11 feet** (0.6 m to 3.4 m)

Thyristor Circuit

Your Vivitar Model 283 has a unique power conservation system called a thyristor circuit. This circuit saves the excess energy not needed for a proper exposure thereby providing incredibly fast recycling and a greater number of flashes per charge. The recycle time and the number of flashes per charge varies depending on the flash-to-subject distance. As you move the flash closer to the subject, the 283 recycles faster, and is capable of providing more flashes per set of batteries.

The Sufficient Light Indicator

The Sufficient Light Indicator ④ on your Vivitar 283 lets you know before you take a picture if the light output will be sufficient for a good exposure. It may be used when shooting in any of the four automatic modes, and is especially helpful in bounce light situations normally requiring complex exposure calculations. To test an exposure using the Sufficient Light Indicator:

1

Position your camera, flash, and subject just as you wish for the final picture.

2

Set both your camera lens and the Mode Selector ⑯ to the desired automatic mode.

3

Switch on the flash unit. After the Ready Light glows, fire the flash by pushing the Ready Light/Open Flash Button ⑩.

If the flash exposure is adequate, the green Sufficient Light Indicator will glow for about 2 seconds immediately after firing the flash. If the light glows, you can be sure of getting a good exposure provided you keep your subject and your photo equipment in the same position. Make sure you wait for the Ready Light to glow before shooting the actual picture.

NOTE: The Sufficient Light Indicator is for use in any of the four Automatic Modes, and will not light if the Sensor is set on manual "M," or if the Sensor is not connected to the flash.

The Illuminated Calculator Dial

The Illuminated Calculator Dial on your Vivitar 283 provides you with vital information at a glance while shooting.

When the Ready Light on the flash is glowing, the Calculator Dial can be illuminated for easy reading by pushing the Calculator Dial Light Button ⑤ on the back of the flash.

To set the Calculator Dial for the ASA or DIN number of the film you are using, turn the outer edge of the dial with both thumbs until the appropriate number on the ASA or DIN Scale is opposite the black Film Speed Indicator. The ASA or DIN number of your film can be found on the film box, cartridge, or on the data sheet that comes packed with the film. If the ASA or DIN number of your film is not on the calculator dial, use the film speed scale shown to find its location and set the black indicator to the corresponding dot on the dial.

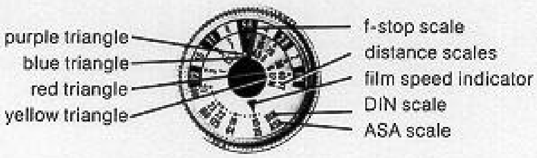
FILM SPEED SCALE

DIN	27	26	25	24	23	22	21	20	19	18	17	16	15
ASA	400	320	250	200	160	125	100	80	64	50	40	32	25

After the Dial is properly set, the four colored triangles on the Dial line up below the four automatic f-stops for the film you are using. If after setting the film speed on the Calculator Dial, each colored triangle falls between two different f-stops, refer to the "Auto f-stop settings" chart on page 24 of the Specifications for the best f-stop to use. The numbers *within* each triangle indicate in both feet and meters the approximate maximum operating range for each *automatic* mode.

EXAMPLE: Using ASA 25 film (DIN 15), the black Film Speed Indicator points to the 25 on the ASA Scale (15 on the DIN Scale). The four automatic f-stops which now align with the colored triangles are: Yellow Mode — f1.4, Red Mode — f2, Blue Mode — f4, Purple Mode — f5.6

NOTE: The automatic operating range for each of the four automatic modes remains the same regardless of the type of film being used. *Only the corresponding f-stops change.* Refer to page 24 for the exact ranges in feet and meters.



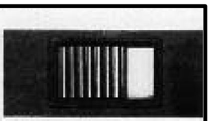
Forming the Capacitor

When your flash is new or when it has not been used for a long time, the capacitor loses some of its ability to store electricity. When this occurs, you can "form" the capacitor as follows:

1

Plug the Sensor ⑮ into the flash and set the Mode Selector ⑯ to the manual "M" position. (See page 5)

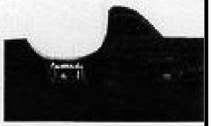
2



Insert the batteries and slide the On-Off Switch to the RED "ON" position: or — plug the optional SB-4 AC Adapter into both the flash and the wall outlet.

NOTE: The flash's On-Off Switch must be in the 'OFF' position when using the AC Adapter.

3



After the Ready Light glows, fire the flash 5 times using the Open Flash Button ⑩, allowing the Ready Light to glow 15 to 20 seconds after each flash.

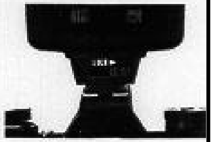
With either method your capacitor will then be formed and you are ready to begin shooting.

Attaching your Flash to the Camera

1

Move the Mounting Foot Lock Lever ⑪ all the way to the left (unlock position).

2



Insert the Mounting Foot ⑫ into the accessory shoe on the camera and tighten by moving the Mounting Foot Lock Lever to the right until it clicks into the "LOCK" position.

3

If your camera has a hot shoe, it is not necessary to use the Detachable Shutter Cord included with your flash unit. Once attached to the camera, the flash is fully synchronized with the camera through the contacts in the shoe.

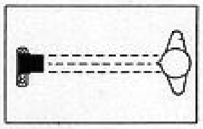
NOTE: When using the flash on a camera hot shoe, the Sensor ⑮ must be connected to the flash or the flash will not fire when the camera's shutter release is pressed.

4

If your camera does not have a hot shoe, plug the pointed end of the Detachable Shutter Cord ⑱ into the Shutter Cord Socket ⑦ on the flash. Plug the other end of the cord into the camera flash terminal marked "X." (Refer to your camera instructions for specific information regarding your camera's electronic flash synchronization.)

Shooting Automatically

On-Camera Direct Flash

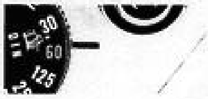


This method of operation with your 283 flash allows you to photograph subjects at maximum distances from the flash while still maintaining automatic flash exposure control.

1

Mount the Sensor ⑮ onto the front of the flash. (See page 5)

2



Set your camera to the correct shutter speed for electronic flash. (Refer to your camera instructions.)

3

Set the ASA or DIN number of the film you are using on the Calculator Dial (see page 7). The four colored triangles on the dial now line up below the four automatic f-stops for the film you are using.

4

Select any one of the four automatic f-stops on the Calculator Dial that provides the automatic operating range or depth of field you desire

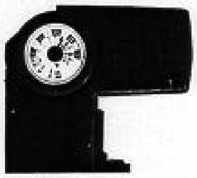
5

Turn the knurled dial on the Mode Selector ⑯ until the color that corresponds to the f-stop you selected in step #4 above appears in the window on the side of the Selector.

6

Set your camera lens to the auto f-stop you selected in step #4.

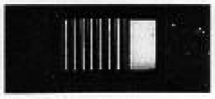
7



Set the flash head tilt to the 0° (straight ahead) position.

EXAMPLE OF ON-CAMERA DIRECT FLASH: You wish to photograph a subject 15 feet away from the flash and desire moderately great depth of field. Using ASA 25 film, set the Mode Selector to the Blue position, and set your camera lens to f4. Your automatic operating range is from 2 to 15 feet.

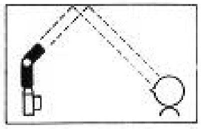
8



Slide the On-Off Switch to the RED "ON" position. Focus the camera. If desired, test the exposure using the Sufficient Light Indicator (see page 6). Take the picture after the Ready Light glows.

Your flash unit will automatically determine correct exposures without further adjustments as long as you remain within the automatic range you have selected.

On-Camera Automatic Bounce Flash



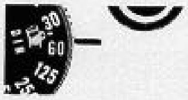
When mounted on-camera, your 283 allows you to bounce light off the ceiling or other reflective surfaces above the flash for extra soft illumination, while maintaining the convenience of automatic flash exposure control.

1

Mount the Sensor ⑮ onto the front of the flash. (See page 5)

2

Set your camera to the correct shutter speed for electronic flash. (Refer to your camera instructions.)



3

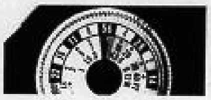
Set the ASA or DIN film speed on the Calculator Dial. (See page 7)

4

After positioning your subject, aim the flash head for the desired bounce angle. The adjustable head of the 283 tilts upward 90° from the 0° (straight ahead) position, with click stops at 0°, 45°, 60°, 75°, and 90° (See 'Helpful Hints', page 20)

5

Select any one of the four automatic f-stops on the Calculator Dial that provides the automatic operating range or depth of field you desire. *Remember that the automatic operating range must be sufficient to include the entire flash-to-reflector-to-subject distance.*



6

Turn the knurled dial on the Mode Selector ⑯ until the color that corresponds to the f-stop you selected in step #5 above appears in the window on the side of the Selector.

7

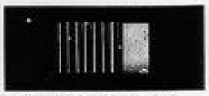
Set your camera lens to the auto f-stop you selected in step #5 above.

EXAMPLE OF ON-CAMERA AUTOMATIC BOUNCE FLASH:
Using ASA 25 film, bouncing the light off an 8 foot white ceiling onto a subject at a total flash-to-reflector-to-subject distance of 20 feet from the flash, and desiring relatively shallow depth of field;

- Set the flash head tilt to the appropriate angle
- Set the Mode Selector to RED
- Set your camera lens to f2.

8

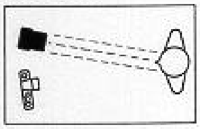
Slide the On-Off Switch to the RED "ON" position. Focus the camera. If desired, test the exposure using the Sufficient Light Indicator (see page 6). Take the picture after the Ready Light glows.

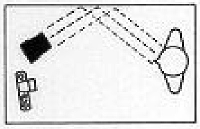


Your flash unit will automatically determine correct exposures without further adjustments as long as you remain within the automatic range you have selected.

Off-Camera Direct and Off-Camera Bounce Flash

An entirely new realm of photography opens up to you when you use your Vivitar 283 off the camera for more pleasing direct lighting or for extra soft automatic bounce flash lighting. Because the Sensor on the flash may be removed and mounted on your camera, the flash can be aimed either directly at the subject or at many different types of reflective surfaces such as ceilings, walls or photo umbrellas and still maintain fully automatic exposure control.



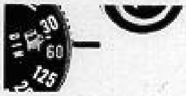


For maximum convenience in a wide variety of off-camera

applications it is recommended that you mount your flash on the optional Vivitar Quick Release Pistol Grip, available at your local Vivitar dealer.

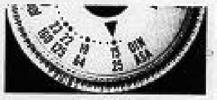
1

Set your camera to the correct shutter speed for electronic flash. (Refer to your camera instructions.)



2

Set the ASA or DIN film speed on the Calculator Dial (See page 7)

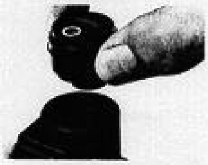


3

Remove the Sensor ⑮ from the flash by pulling it straight out from the body of the flash.

4*

Mount the Sensor on the Sensor Holder ⑭ by aligning the black ridge at the back of the Sensor with the groove in the front of the Sensor Holder and pushing the Sensor firmly into the Holder.

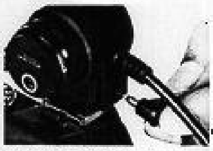


5*

Plug the small end of the Sensor Cord ⑭ into the Sensor Socket ② on the front of the flash, making sure the ridge in the plug aligns with the groove in the Sensor Socket.

6*

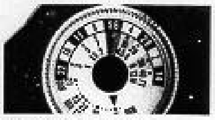
Slide the Sensor Holder ⑭ onto your camera's flash accessory shoe with the Sensor facing forward. If your camera is equipped with a hot shoe, full flash-to-camera synchronization is now achieved through the Sensor Cord. If your camera is not equipped with a hot shoe, plug the pointed end of the Detachable Shutter Cord ⑱ into the Sensor Holder Shutter Cord Socket on the side of the Sensor Holder, and plug the other end of the Shutter Cord into the "X" terminal on your camera. (Refer to your camera instructions for specific information regarding your camera's flash synchronization.)



* *Optional accessory in some countries*

7

Select any one of the four automatic f-stops on the Calculator Dial that provides the automatic operating range or depth of field you desire. *Remember that the automatic operating range must be sufficient to include the entire flash-to-reflector-to-subject distance.*



8

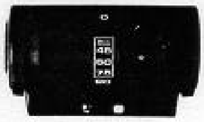
Turn the knurled dial on the Mode Selector ⑯ until the color that corresponds to the f-stop you selected in step #7 above appears in the window on the side of the Selector.

9

Set your camera lens to the auto f-stop you selected in step #7.

10

After positioning your subject, aim the flash for the desired lighting effect. The adjustable head of the 283 tilts upward 90° from the 0° (straight ahead) position, with click stops at 0°, 45°, 60°, 75° and 90°. (See "Helpful Hints," page 20)

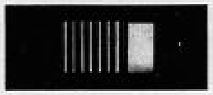


EXAMPLE OF OFF-CAMERA AUTOMATIC BOUNCE

FLASH: Using ASA 25 film, you wish to use side lighting on your subject for a dramatic effect. The total bounce distance from the flash to the wall to the subject is 12 feet and you want relatively great depth of field:

- Set the Mode Selector to BLUE (automatic operating range 2-15 feet).
- Set your camera lens to f4.
- Aim the flash at the midpoint on the wall between the flash and the subject.

11



Slide the On-Off Switch to the RED "ON" position. Focus the camera. If desired, test the exposure using the Sufficient Light Indicator (see page 6). Take the picture after the Ready Light glows.

Your flash unit will automatically determine correct exposures without further adjustments as long as you remain within the automatic range you selected.

The Bounce Compensator Circuit

Your Vivitar 283 has a built-in Bounce Compensator Circuit (BCC) that automatically increases the light output of the flash when the 283 is set to the 45°, 60°, or 75° positions on the Bounce Angle Scale ③. These three positions are enclosed in the red rectangle on the Scale. The BCC feature supplies the extra power usually required to compensate for light dispersion when bouncing light off the ceiling or other reflectors above the flash.

NOTE: The BCC functions with any of the four automatic modes, and does not activate when shooting in the manual "M" mode.

Shooting Manually

Direct Flash

Should you wish to use your 283 in the Manual mode (for

taking pictures beyond the automatic flash range or when using multiple flash lighting), proceed as follows:

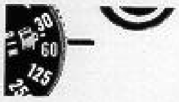
1

Mount the Sensor ⑮ onto the flash unit. (See page 5)

2

Set the Mode Selector ⑯ to the Manual "M" position.

3



Set your camera to the correct shutter speed for electronic flash. (Refer to your camera instructions.)

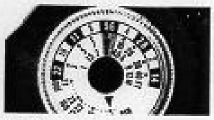
4

Set the ASA or DIN film speed on the Calculator Dial. (See page 7)

5

Focus your camera and estimate the distance from the flash to the subject. You can usually do this "by eye" or you can refer to the distance indicated on the camera lens barrel after focusing.

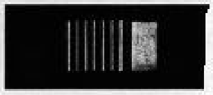
6



Find the flash-to-subject distance on the Calculator Dial Distance Scale, and set your lens to the f-stop indicated above that distance. (Disregard the colored triangles on the Dial when shooting in the manual mode.)

EXAMPLE: If you are 45 feet from your subject and are using ASA 64 film, set your lens f-stop to f2.

7



Slide the On-Off Switch to the RED "ON" position. Focus the camera Take the picture after the Ready Light glows.

CAUTION: For rapid sequence flash pictures in the manual mode, you may fire your 283 as soon as the Ready Light glows. However, to prevent possible damage avoid a continuous series of more than 25 flashes and allow the unit to "rest" for 4 minutes between series.

Manual Bounce Flash

Your 283 can be used in the manual "M" mode for bounce flash at distances beyond the maximum automatic operating range..

First set the Mode Selector on the 283 to manual "M".

To determine the proper exposure when using bounce flash in the manual mode, use any ONE of the following methods:

1

In rooms of average size and color, a good general rule is to open your lens 2 f-stops wider than if you were shooting direct.

OR

2

After setting the proper ASA number on the Calculator Dial, find the total flash-to-reflector-to-subject distance on the Calculator Dial and note the f-stop indicated above that distance. Open your lens 1 f-stop wider than indicated on the dial.

EXAMPLE: Photographing a subject 20 feet from the flash with ASA 100 film, set your lens to f4.

OR

3

If the total bounce distance does not appear on the Calculator Dial, first measure the distance from the flash to the reflecting surface to the subject. Then, divide that total distance into the flash guide number for the film you are using. Note the resulting number (rounded off to the nearest f-stop), and open your lens 1 f-stop wider.

EXAMPLE: Using ASA 25 film at a total flash-to-reflector-to-subject distance of 20 feet . . . Guide No. 60 ÷ 20 = 3 (approx. f2.8). Open your lens to f2.

NOTE: When figuring flash-to-subject distance using manual bounce flash, be sure to consider the light absorbtion of the reflective surface. Bouncing off surfaces such as curtains, for example, will add to the effective distance between the flash, the reflector, and the subject. To insure properly exposed pictures when bouncing off light absorbing surfaces, open your lens 1 additional f-stop over the setting determined by any of the above methods.

Cameras with Built-In Automatic Flash Control

Some cameras have a feature which automatically sets the correct lens apertures for flash as you focus. For the camera and your Vivitar 283 to operate properly together, you must:

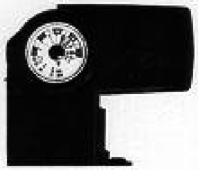
1

Set the correct flash guide number for the film you are using on the Guide Number Scale of your camera (refer to your camera instructions for the location of the Guide Number Control); and

2

Make sure the Mode Selector ⑯ is set to manual "M"; and

3



Mount the flash on the camera and tilt the flash head to 0° (direct flash). The proper flash guide numbers corresponding to both ASA and DIN film speeds are indicated in the Specifications, Page 24.

After you've Finished Shooting

Removing the Flash

To remove the flash from the camera, move the Mounting Foot Lock Lever ⑪ all the way to the left (unlock position) and slide the flash off the accessory shoe.

Batteries

A. To conserve battery power, it is recommended that you turn off the unit when there is more than a 2 or 3 minute delay between pictures.

B. If you're not going to use your flash unit for several weeks, or if the batteries appear weak, remove them.

Helpful Hints

Off-Camera Direct Lighting

Shooting with the flash off-camera helps eliminate harsh shadows, washed-out foregrounds, and "red-eye." When using direct lighting, try holding the flash above and slightly to the right or left of your subject to produce better modeling. You can diffuse direct light to achieve a softer tone by placing a handkerchief over the flash head, making sure the Sensor is left uncovered.

Bounce Lighting

Soft lighting with a minimum of harsh shadows is achieved by bouncing the light off a reflective surface onto your subject. Light colored walls, ceilings, large sheets of paper, or even bed sheets make ideal reflectors. This type of lighting is similar to soft, hazy sunlight or window light.

When using color film, be careful about the color of the reflective surface, as the bounced light will take on the color of the reflector. Unless you are trying for special effects, it's a good idea to use a gray or light-colored surface.

As a general rule when using bounce flash, set the flash head tilt on the 283 so that the light is directed at the midpoint on the ceiling between the flash and the subject.

Using the Sufficient Light Indicator

If the green Sufficient Light Indicator does not glow upon firing a test flash, you will have to make adjustments that allow more light to reach the subject. Several alternatives are listed below which may be used alone or in combination with one another.

1

Set the Mode Selector to an automatic mode that utilizes a wider f-stop opening, and set your camera lens accordingly.

2

Shorten the distance the light must travel to reach the subject. This may be accomplished by moving the flash, the subject, the reflector (if using bounce flash) or by a combination of the three.

3

Bounce the light off a more reflective surface (e.g. a white wall rather than a white curtain).

NOTE: The indicator does not function in the manual mode.

Mirrors

Never shoot flash pictures straight into mirrors, glass or other highly reflective surfaces, as the resulting light reflections may ruin your pictures. Stand at an angle so that any reflections will be directed away from the camera. Hint: If you can't see yourself in the mirror, you're safe.

Simulating sunlight

There are times when the sun disappears, but the picture calls for sunlight. Your electronic flash can then be used as the main light and very successfully simulate sunlight.

When you wish to simulate sunlight outdoors in dull weather, first determine the proper exposure for the natural daylight and then stop down one full f-stop. Determine the corresponding flash-to-subject distance for that f-stop. Set your flash at that distance. The flash will then serve as the dominant light source, and the natural light will serve as fill light.

Be sure to set the Mode Selector of your 283 to manual "M" for simulating sunlight.

Open flash

This technique involves firing the flash manually while the camera shutter is open. You can use it for a variety of creative effects. For example, while the shutter is open the film records both the image lit by the existing light and the image lit by the flash. You can capture both a sharp and a blurred image in the same picture to create a feeling of movement. Or, in a large dark interior you can open the shutter and fire several electronic flashes from different positions until you have lit the entire scene.

Synchronization speed

When taking pictures with your Vivitar electronic flash, always try to use the fastest shutter speed that provides full electronic flash synchronization (refer to your camera instructions for this information). This will eliminate "ghosts" or blurry images of brightly lit objects in the background.

Group shots

When photographing groups of people, bounce lighting gives an even and pleasing coverage of the subject. Arrange the group so that everyone is about the same distance from the camera. If you're not careful, people closest to the camera will be overexposed or "washed out," and those furthest away will be underexposed because not enough light reached their spot in the picture. Be sure to move well within the flash range indicated on the Calculator Dial and remember to estimate the *entire* bounce distance if you are using bounce flash.

Flash fill

Electronic flash can be used outdoors to 'fill-in' shadow areas. It softens hard shadows resulting from bright sunlight and is particularly useful with color slide film, which can record only a limited contrast range.

Here is a simple procedure which you can modify according to your preference. Set your camera's shutter speed and f-stop for a proper exposure of the subject without flash. Keep in mind that only some shutter speeds can be synchronized with the flash. Divide the flash guide number for the film you are using by the f-stop you have set. This will give you the flash-to-subject distance for a bright fill. For a normal fill, move the flash back half again the distance; for a weaker fill (not recommended with color slide film) double the bright fill distance.

Set the Mode Selector of your 283 to Manual "M" for flash fill.

Vivitar Model 283 Specifications

Manual Operation

Guide numbers (ASA-Feet):

ASA Film Speed	25	64	80	100	125	160	200	400	800
Flash Guide No.	60	96	108	120	135	150	170	240	340

Guide numbers (DIN-Meters):

DIN Film Speed	15	19	20	21	22	23	24	27	30
Flash Guide No.	18	29	32	36	40	45	51	72	100

Automatic Operation

Auto f-stop settings to the closest half-stop:

Film Speed: ASA	25	64*	80*	100*	125*	160*	200*	400	800
DIN	15	19	20	21	22	23	24	27	30
YELLOW Mode	1.4	2.4	2.4	2.8	3.5	3.5	4	5.6	8
RED Mode	2	3.5	3.5	4	4.7	4.7	5.6	8	11
BLUE Mode	4	6.7	6.7	8	9.5	9.5	11	16	22
PURPLE Mode	5.6	9.5	9.5	11	14	14	16	22	32

*These ASA film speeds differ by only ⅓ of an f-stop. The resulting change in exposure is so slight that a change in the auto f-stop may not be indicated.

Automatic operating ranges:

YELLOW Mode, 5 ft. to 43 ft. (1.5 m to 13 m)
RED Mode, 4 ft. to 30 ft. (1.2 m to 9 m)
BLUE Mode, 2 ft. to 15 ft. (0.6 m to 4.5 m)
PURPLE Mode, 2 ft. to 11 ft. (0.6 m to 3.4 m)

General Specifications

BCPS (Beam Candle Power Seconds): 2,900 (manual)

Recycle Time:

DC — Alkaline Batteries: 0.5 to 11 sec. auto
11 sec. manual
Nicad Batteries: 0.5 to 6 sec. auto
6 sec. manual
AC — 10 seconds (with optional SB-4 AC Adapter)

(When using batteries, recycle times are based on an average of the second through eleventh flashes with fresh batteries. Recycling takes longer as the batteries drain.)

Flash Duration (approx):
1/1000 second (manual)
1/1000 to 1/30,000 second (automatic)

Color Temperature: 5500° Kelvin

Angles of Illumination: 45° vertical, 60° horizontal (35mm lens)

Power Sources:
DC — Four 1.5 volt size AA alkaline batteries (Mallory MN1500, Eveready E91 or equivalent)
Ni Cad batteries — optional Vivitar NC-3 battery pack
AC — Optional Vivitar SB-4 AC Adapter (105-125V AC)

Flashes per Power Source:

Source	Auto*	Manual
Alkaline Batteries	75–800	75
NiCads (optional)	45–750	45
AC (optional)	infinite	infinite

*Number of flashes in the auto mode depends on flash to subject distance, room reflectivity and auto f-stop setting used.

Camera/Electronic Flash Synchronization Connections:
Shutter Cord, Hot Shoe, Sensor Holder

Weight without Batteries: 14 oz (400 g)

Dimensions:
5⅞″ x 3½″ x 1⅞″ (149 mm x 89 mm x 48 mm)
(less the mounting foot and sensor)

Accessories Included: Removable Sensor, 1.2 Meter Sensor Cord, *Vivitar PC-1 12″ Shutter Cord

Specifications subject to change without notice.

* *Optional accessory in some countries*